



APPROVED	O.G. FIG.	
BY	CLASS	SUBCLASS
DRAFTSMAN		

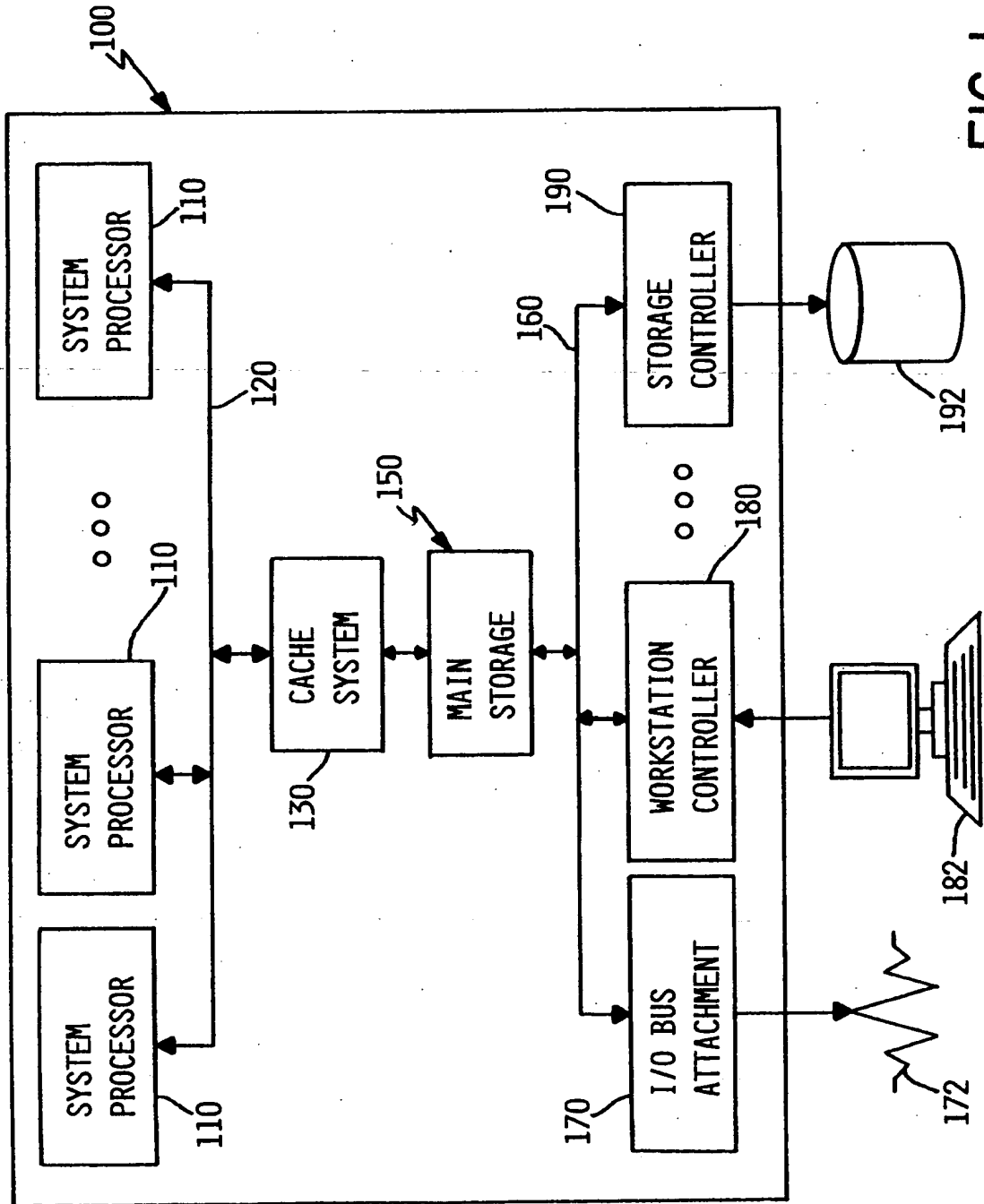


FIG. 1



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APPROVED	O.G. FIG.	
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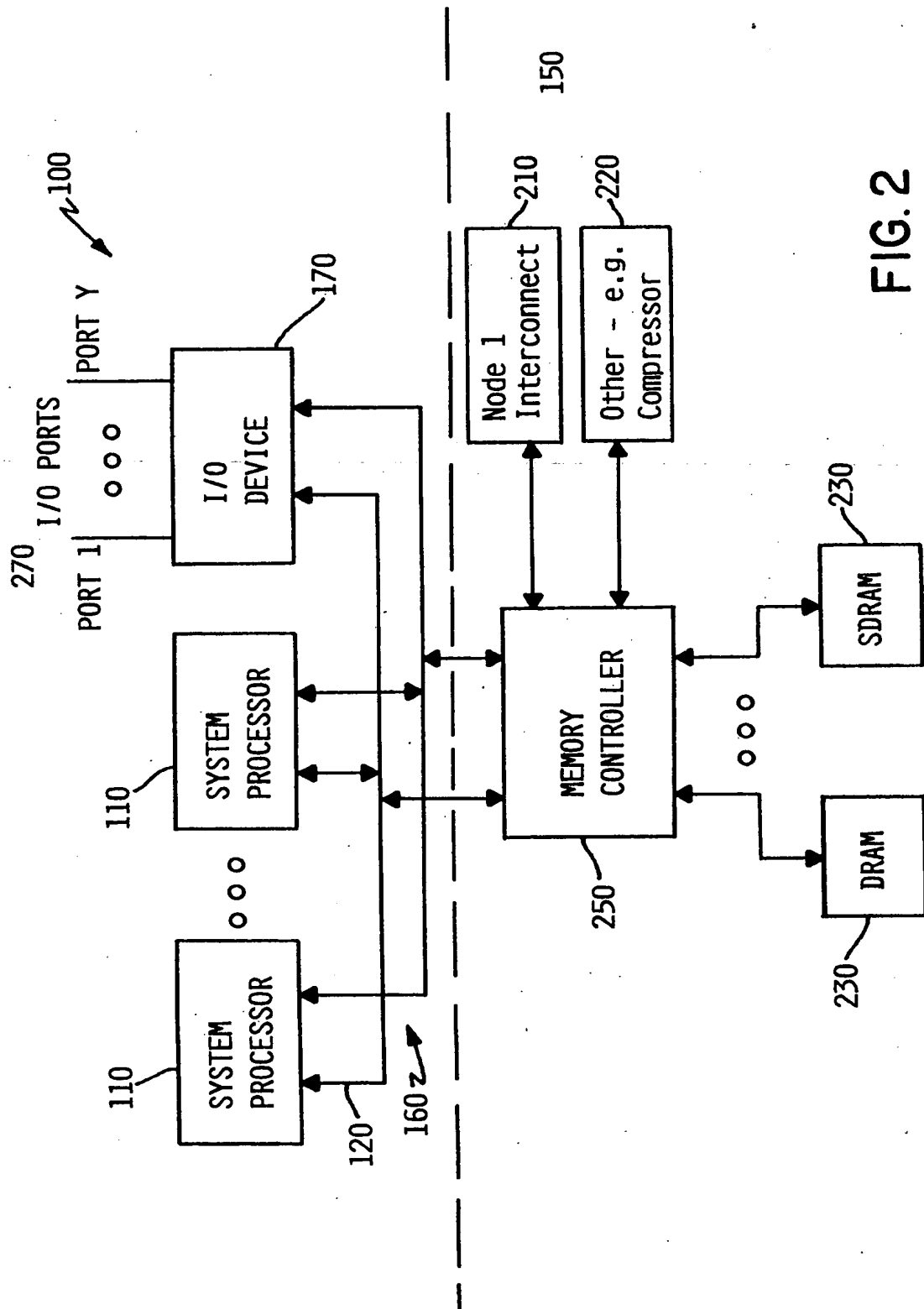
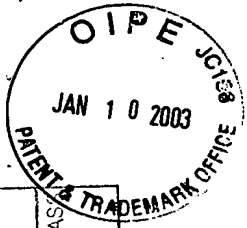


FIG. 2



APPROVED	O. G. FIG.
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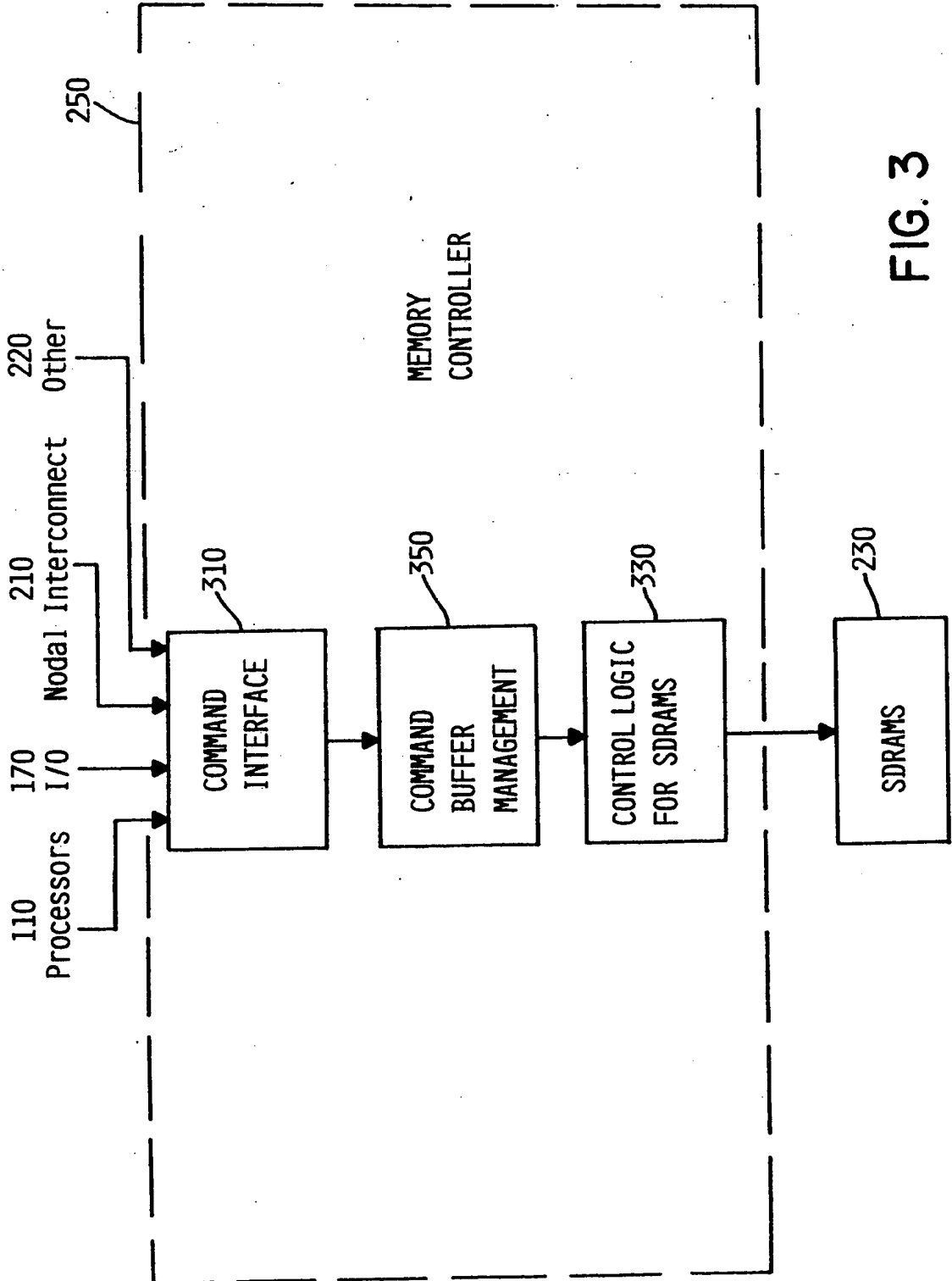


FIG. 3



APPROVED	O.G. FIG.
BY	CLASS
DRAFTSMAN	SUBCLASS

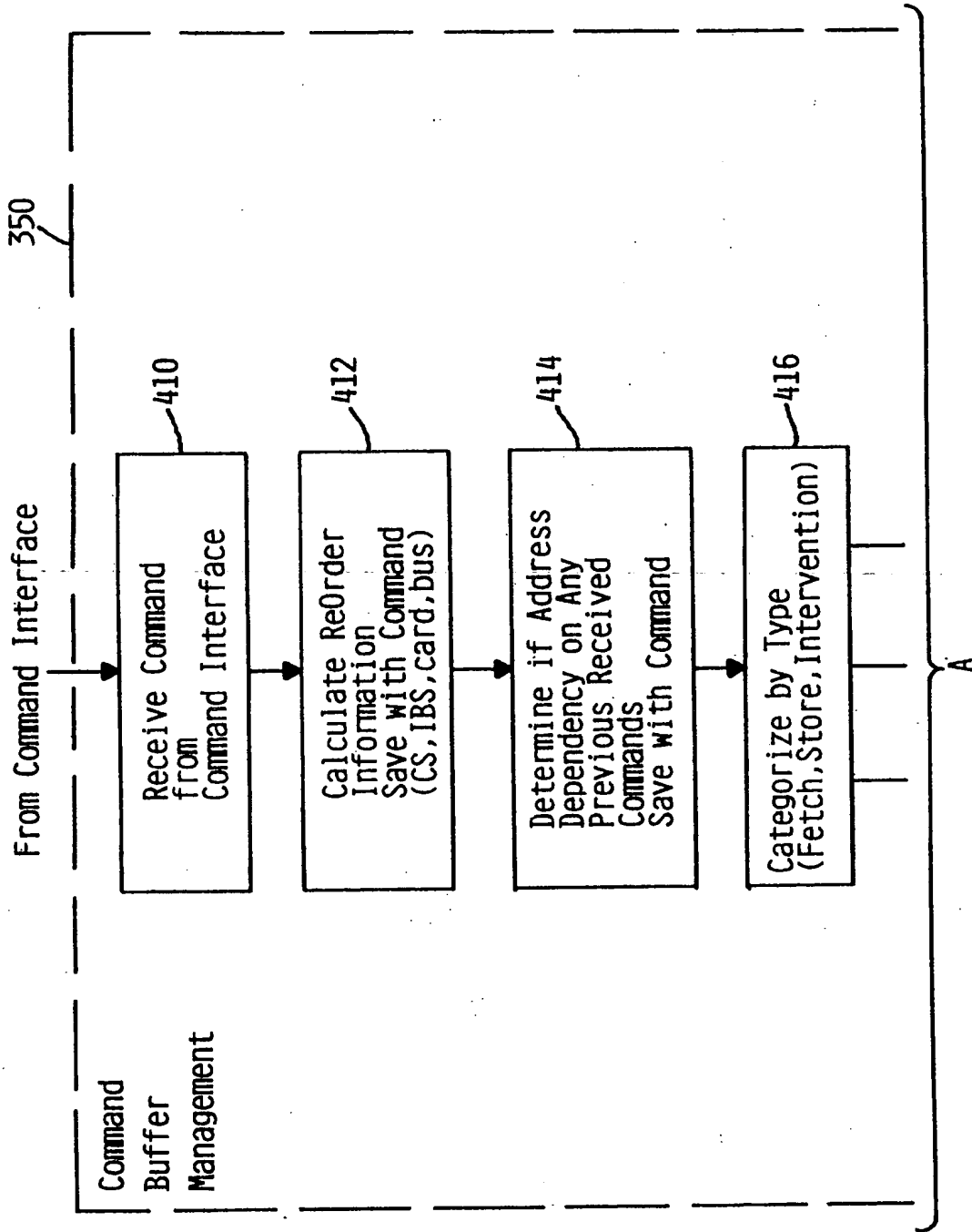


FIG. 4A



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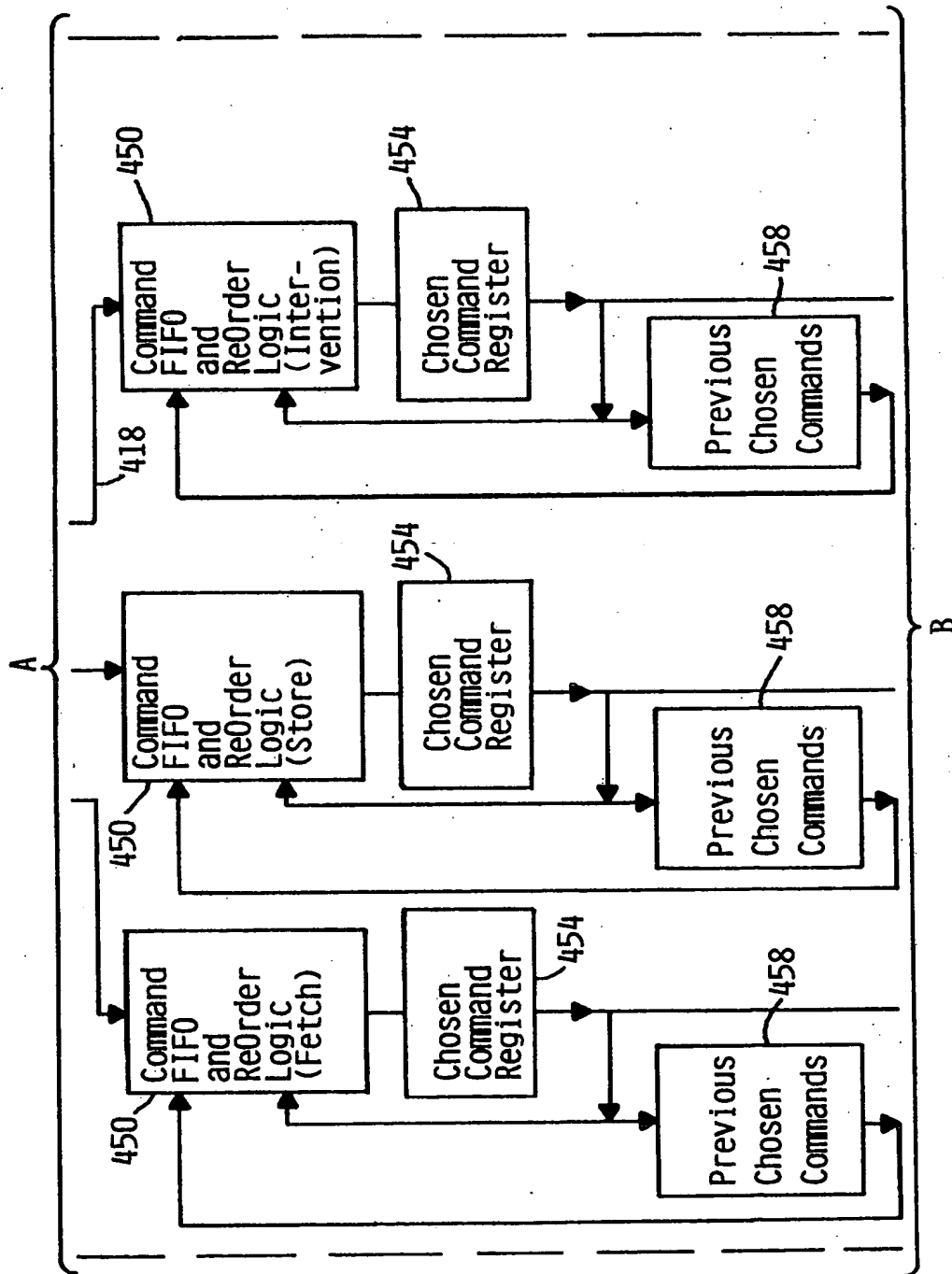


FIG. 4B

APPROVED	O.G. FIG.	CLASS	SUBCLASS
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APPROVED	O.G. FIG.	
BY	CLASS	SUBCLASS
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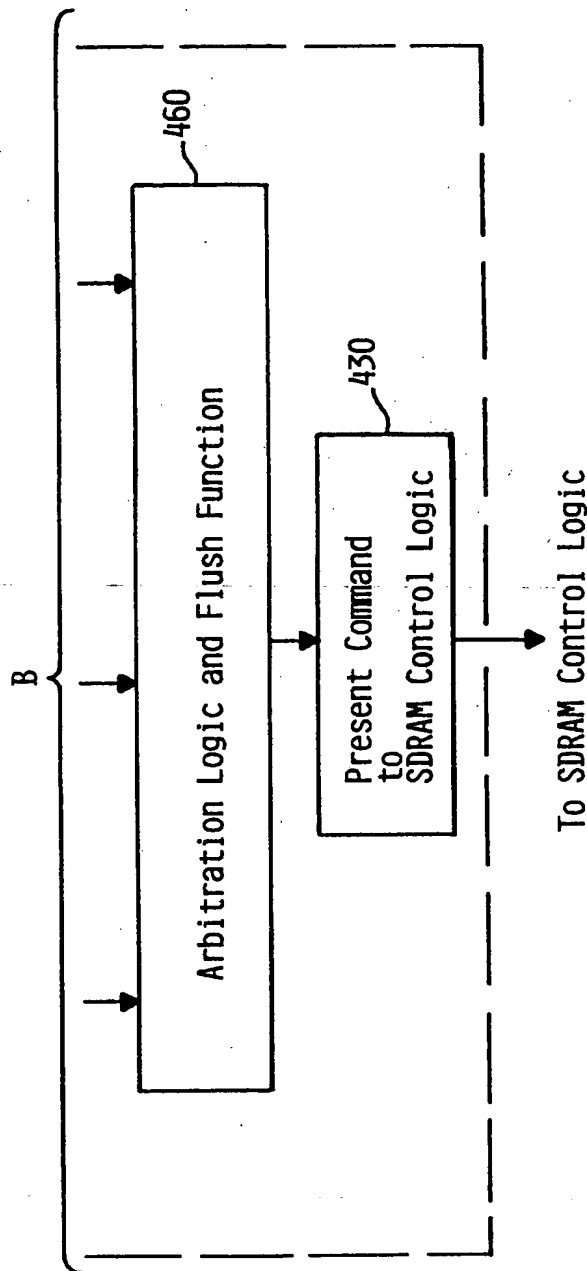
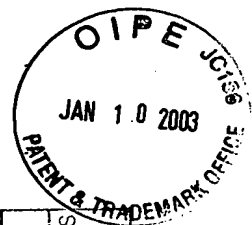


FIG. 4C



APPROVED	O.G. FIG.	CLASS	SUBCLASS
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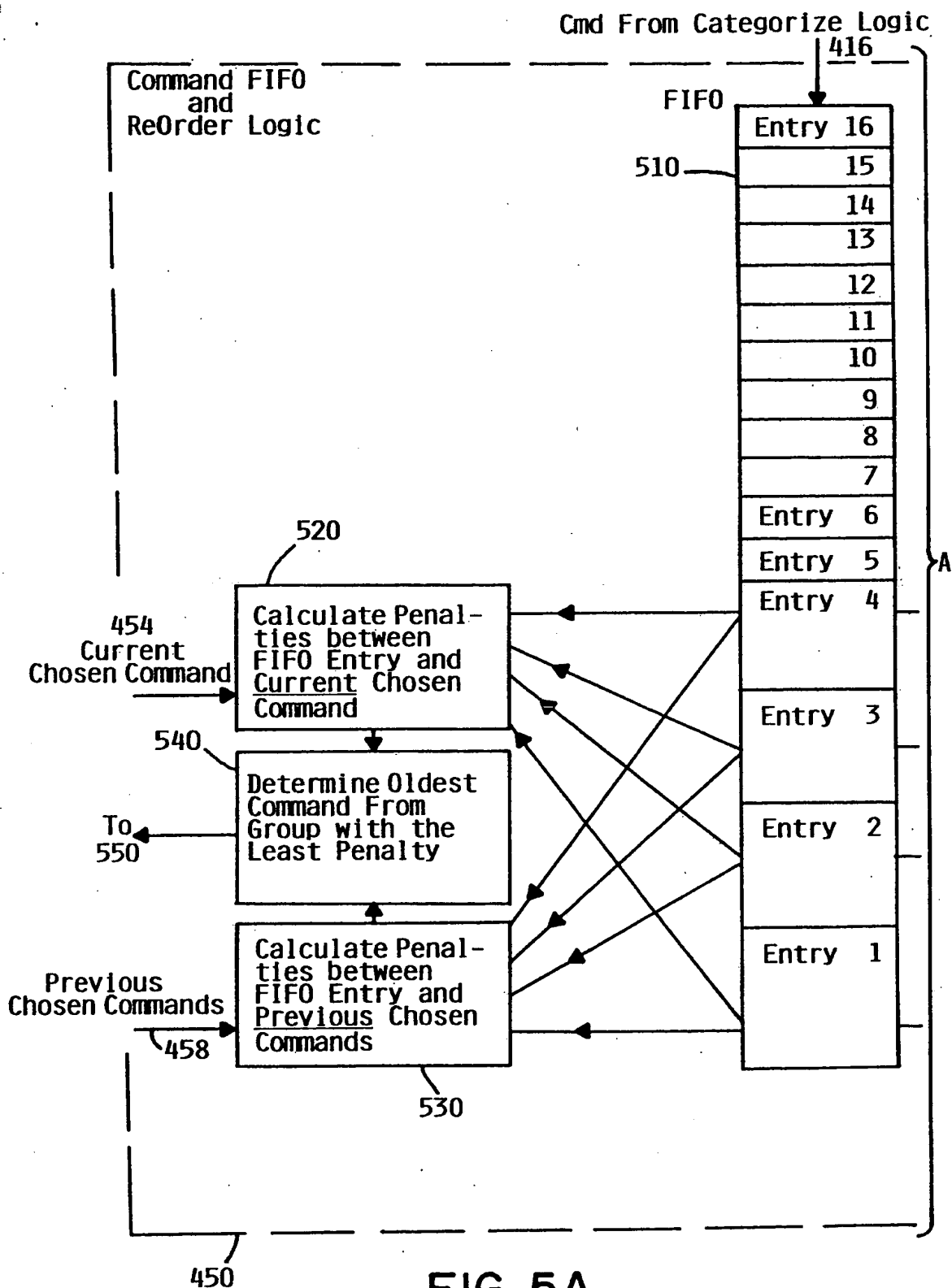


FIG. 5A



APPROVED	O.G. FIG.	
	CLASS	SUBCLASS
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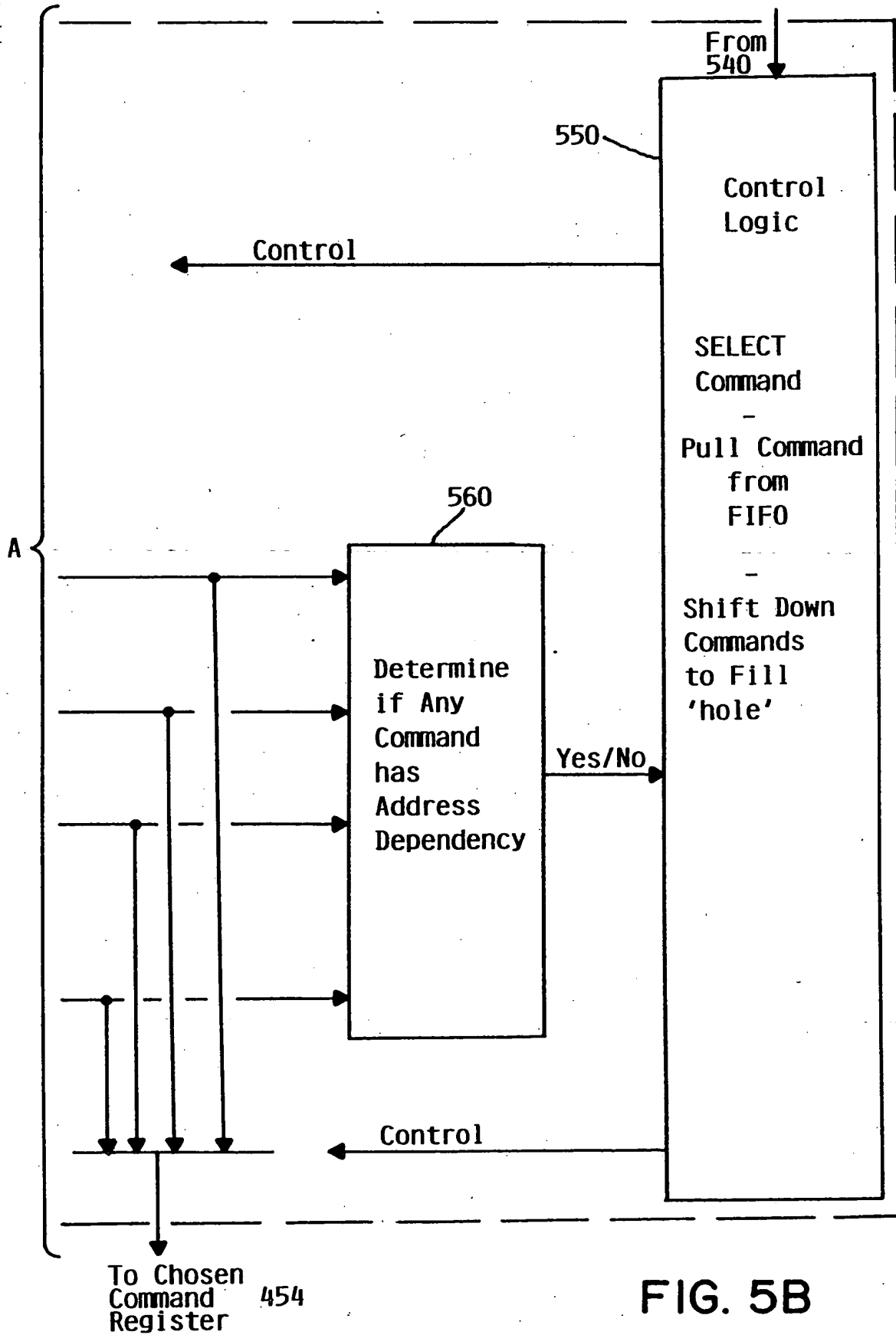


FIG. 5B



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Command FIFO and Reordering - Flow Diagram

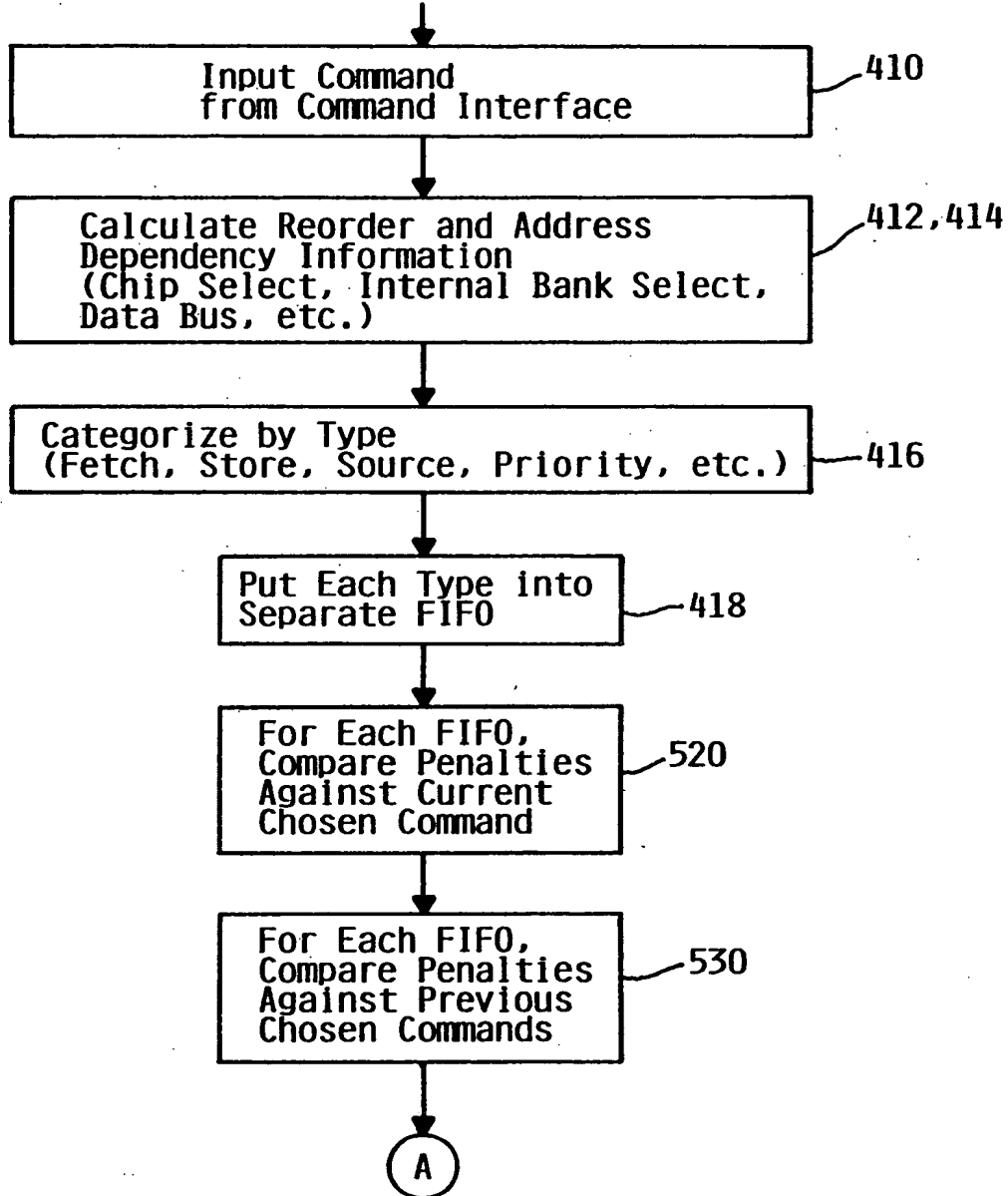


FIG. 6A



APPROVED	Q.G. FIG.	CLASS	SUBCLASS
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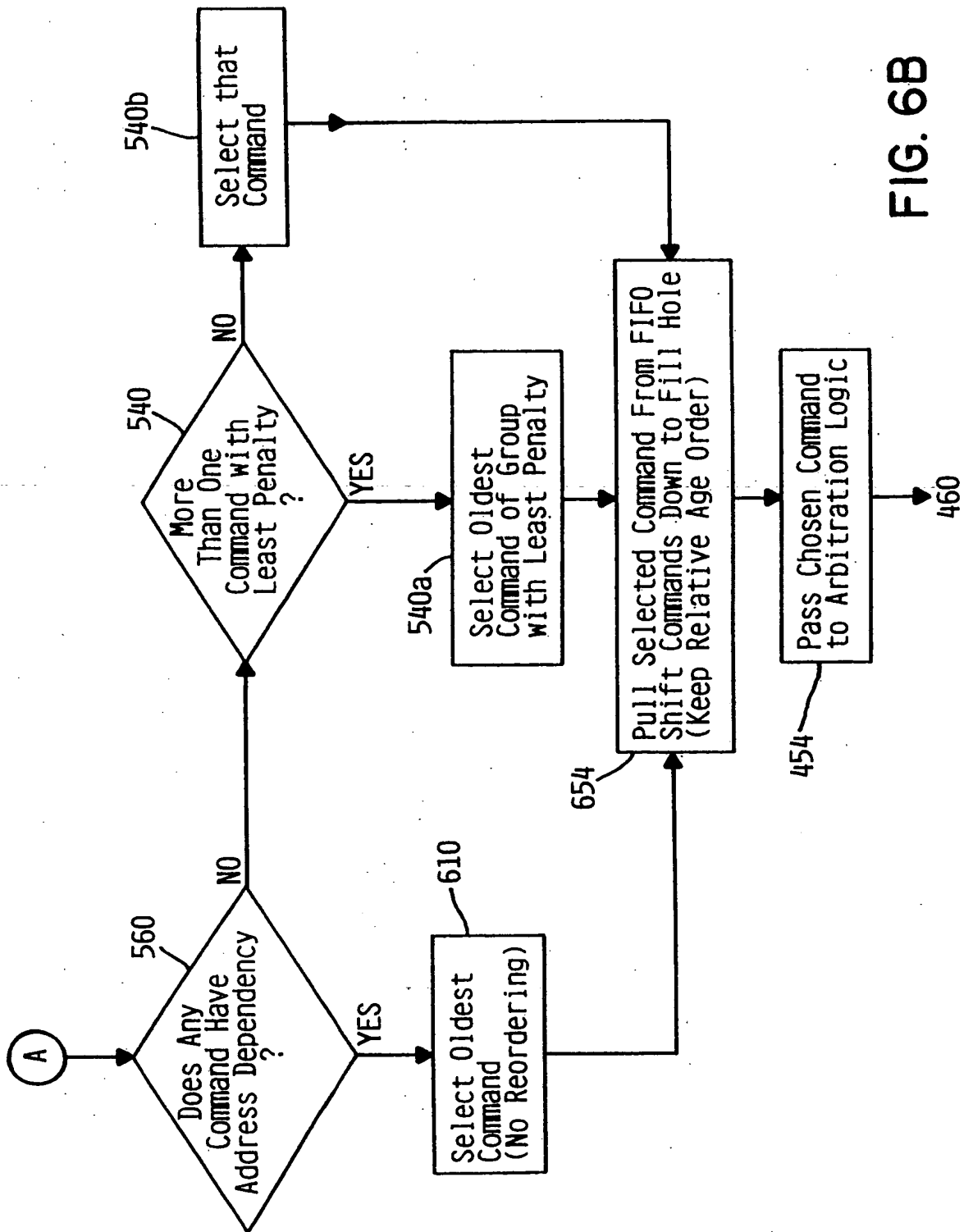


FIG. 6B



APPROVED	C.G. FIG.	
BY	CLASS	SUBCLASS
DRAFTSMAN		

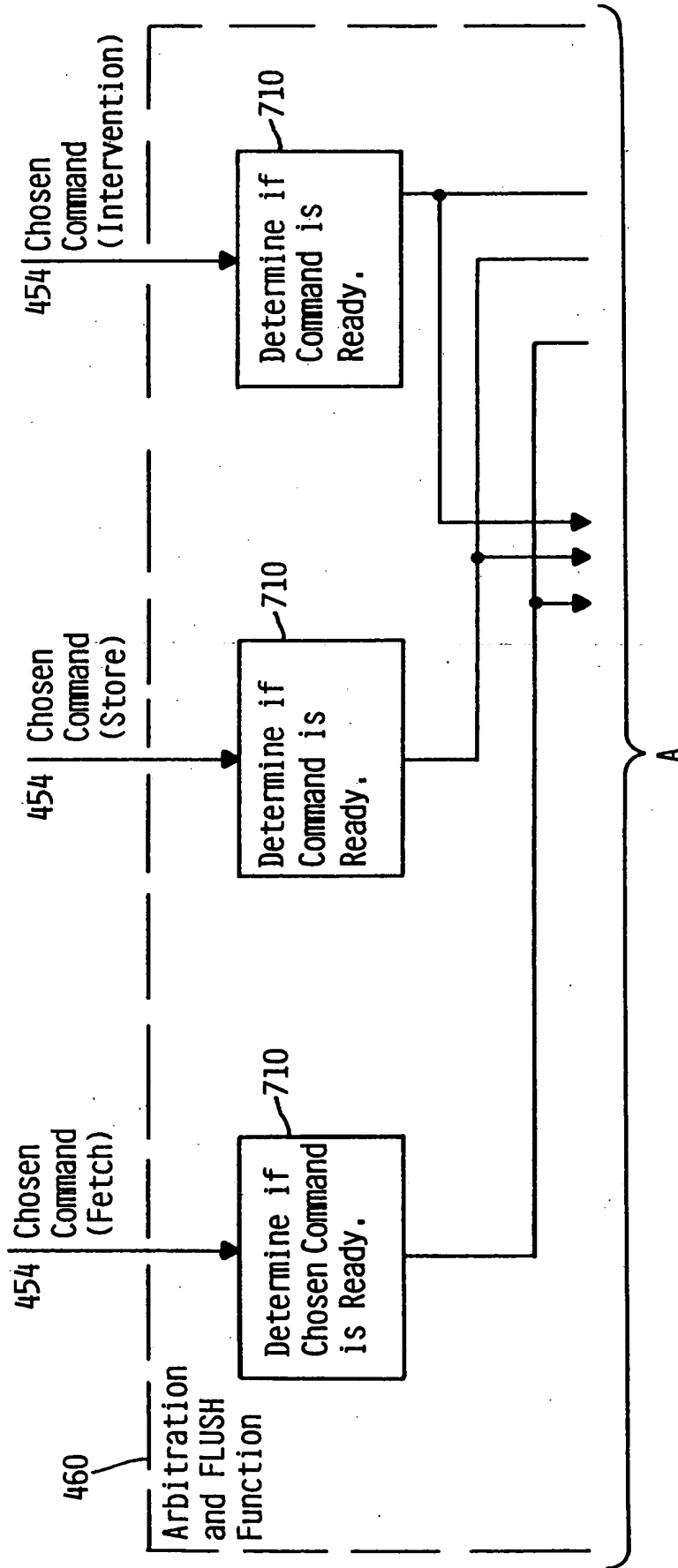
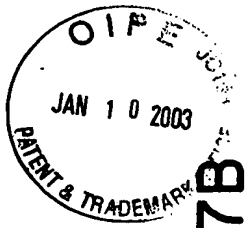
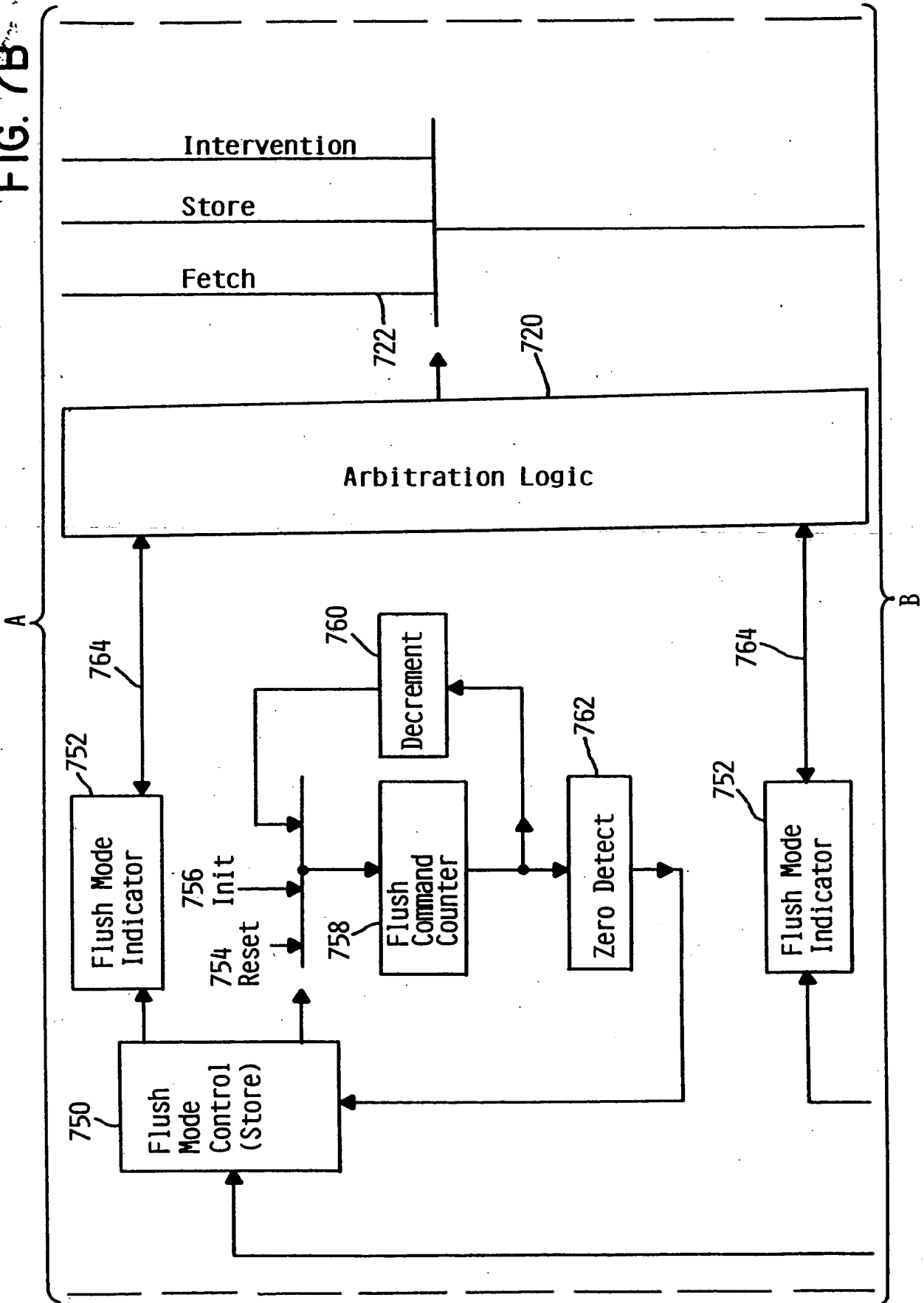


FIG. 7A



APPROVED	O.G. FIG.	CLASS	SUBCLASS
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DRAFTSMAN			

FIG. 7B





APPROVED	O.G. FIG.	
BY	CLASS	SUBCLASS
DRAFTSMAN		

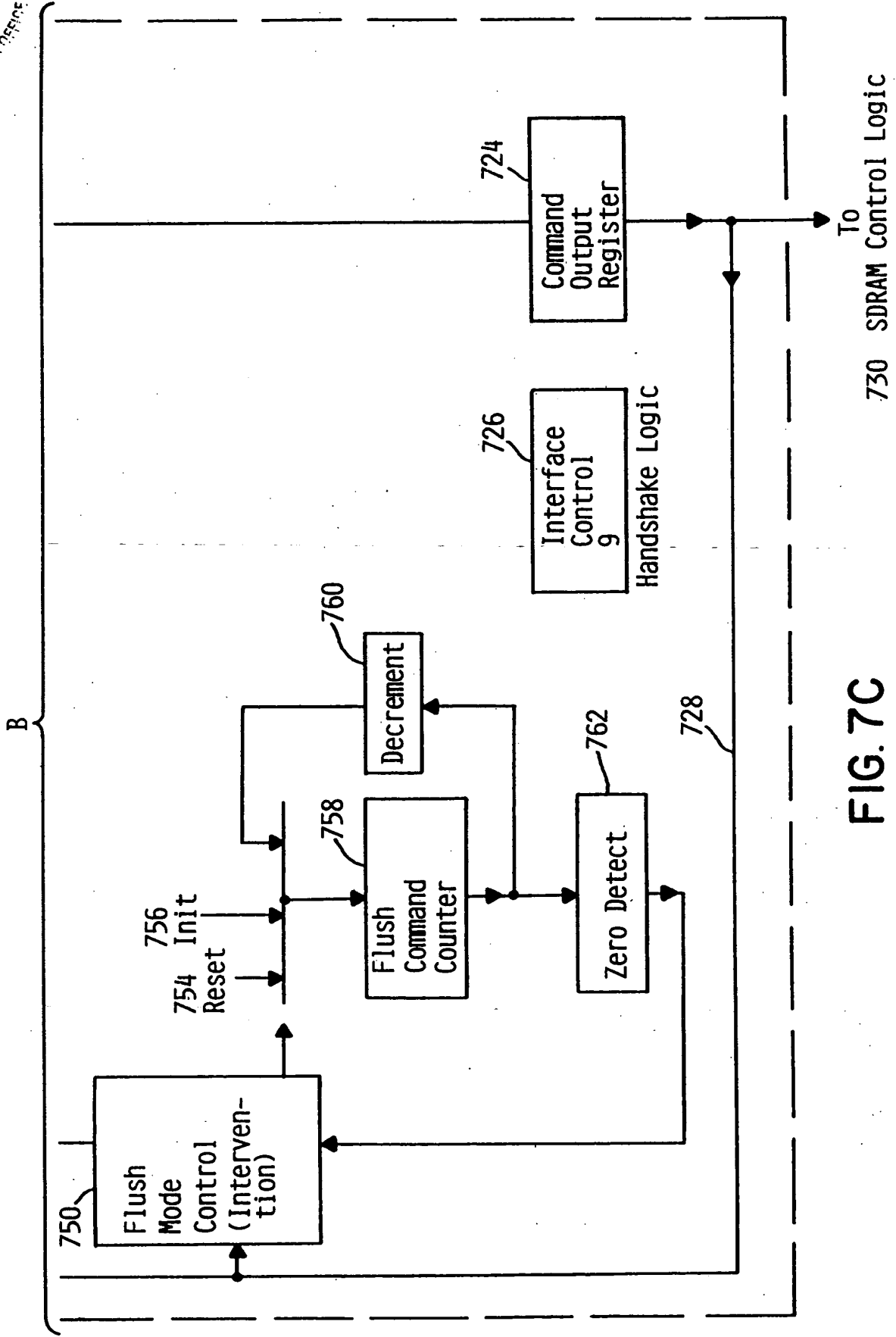
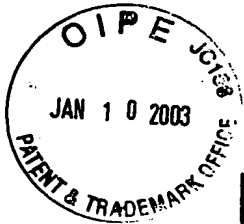


FIG. 7C



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O.G. FIG.	CLASS	SUBCLASS
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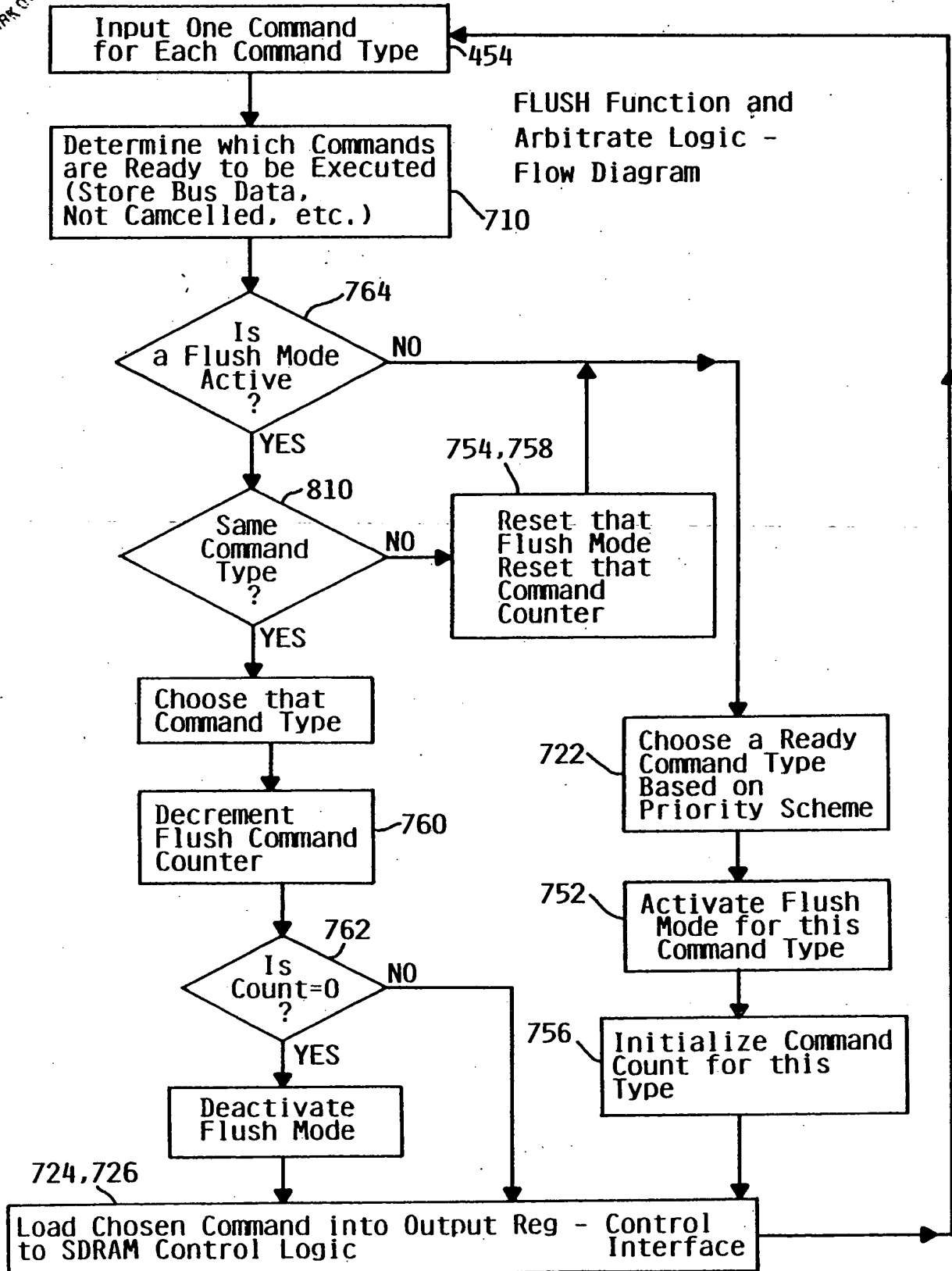


FIG. 8



APPROVED	O.G. FIG.	
BY	CLASS	SUBCLASS
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Deadlock Condition - (Occurred by ReOrdering)

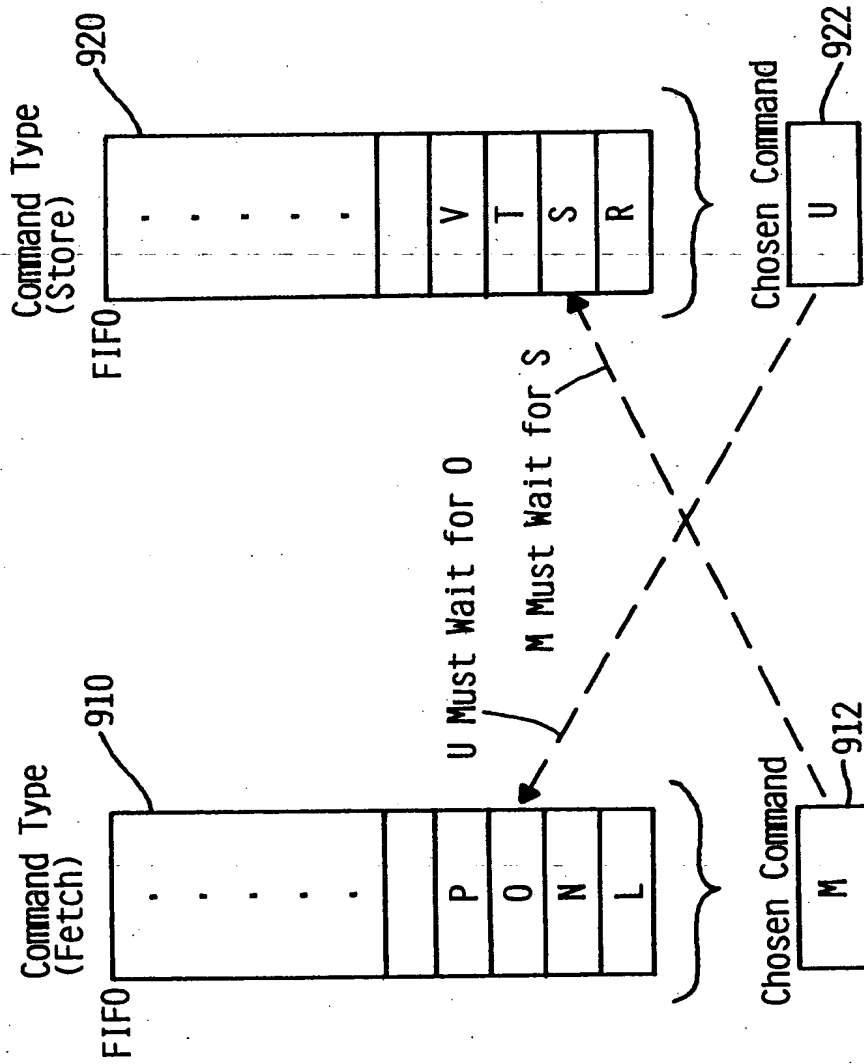


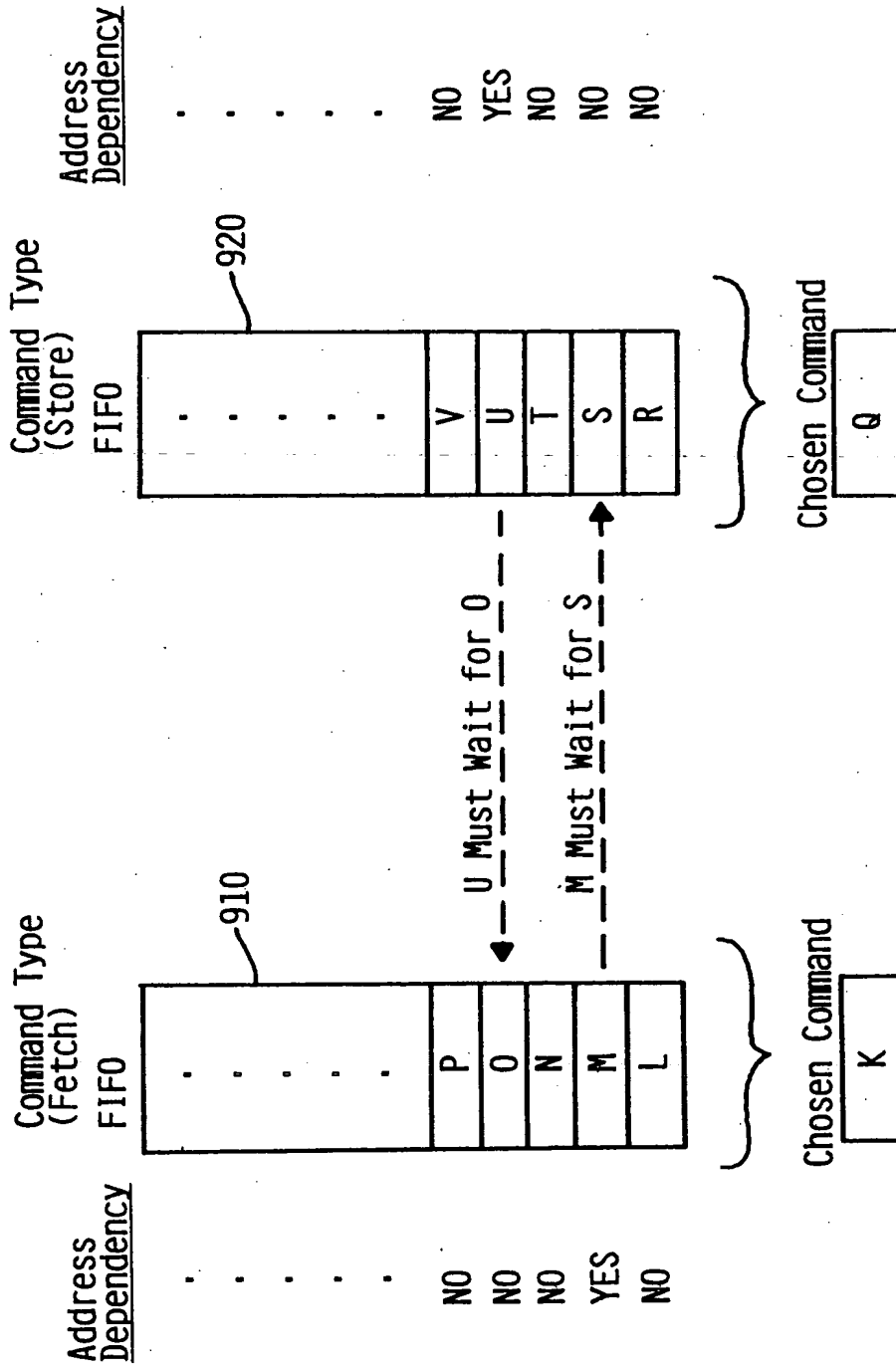
FIG. 9A

- * If certain command chosen by ReOrder Logic, then deadlock
- Key idea is to not reorder if any command being considered has an address dependency



APPROVED	O.G. FIG.	
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Possible Deadlock Condition - (Avoided by executing as FIFO)



- Command U address is in same cache line as command O, and was received after command O.
- Command M address is in same cache line as command S, and was received after command S.
- * If commands in both FIFOs execute in order, then no deadlock.

FIG. 9B